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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/336,200	06/18/1999	SIMON H. CORSTON-OLIVER	M61.12-0099	7359

7590 09/08/2003

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EXAMINER

PARDO, THUY N

ART UNIT	PAPER NUMBER
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2175

DATE MAILED: 09/08/2003

20

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/336,200

Applicant(s)

CORSTON-OLIVER ET AL.

Examiner

Thuy Pardo

Art Unit

2175

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35,41,43 and 62-66 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,13-16,23-35,41,43 and 62-66 is/are rejected.
- 7) ☒ Claim(s) 7-12 and 17-22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's Amendment filed on October 08, 1999 in response to Examiner's Office

Action has been reviewed. Claim 1 have been amended.

2. Claims 1-35, 41, 43, and 62-66 are presented for examination.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6, 13-16, 23-35, 41, 43, and 62-66 are rejected under 35 U.S.C. § 103 as being unpatentable over **Turtle** US patent no. 5,265,065, in view of **Liddy et al.** (Liddy) patent no. 6,006,221.

As to claim 1, Turtle teaches the invention substantially as claimed, comprising:

obtaining a set of relations [50, 50 of fig. 4; col. 13, lines 20-26], the relations including grammatical relations or case [the relationship between words including linguistic relationships, col. 13, lines 20-26];

identifying constituents in the first textual input that have the relations [50, 40, 42 of fig. 4; component words and the relationship between them, col. 13, lines 20-36]; and

determining the relationship between the first and the concept node of a document representation [44, 58 of fig. 4; a match between the concept node of a search query and the content node of a document representation, col. 13, lines 51-57] based on the constituents identified [col. 11, lines 27-42; ab; col. 13, lines 51-57].

However, Turtle does not explicitly teach a second textual input that have relations. Liddy teaches a second textual input that have relations [provide additional term-based representations, see the abstract; fig. 6; col. 2, lines 62-65].

Therefore, It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention to have modified the communication service system of Turtle wherein the relationship between the first and the concept node of a document representation provided thereof would have incorporated the teachings of Liddy especially the feature of providing the second textual input that have relations; the motivation being to enhance the versatility of Turtle's system by allowing the augmentation of concept level matching through the use of term based representation matching [Liddy, col. 23, lines 10-21].

As to claim 2, Turtle and Liddy teach the invention substantially as claimed. Turtle further teaches determining the relationship between the first and second textual inputs based on the relations [col. 13, lines 51-57].

As to claim 3, Turtle and Liddy teach the invention substantially as claimed. Turtle further teaches obtaining a hierarchy of grammatical relations [40 of fig. 4]; and obtaining a hierarchy threshold based on a usefulness of grammatical relations in the hierarchy in determining the relationship between the first and second textual inputs [see example, 44 of fig. 4].

As to claim 4, Turtle and Liddy teach the invention substantially as claimed. Turtle further teaches determining the usefulness of identified constituents by locating the grammatical relations associated with the identified constituents in the hierarchy [40 of fig. 4].

As to claim 5, Turtle and Liddy teach the invention substantially as claimed. Turtle further teaches identifying low ranked constituents having corresponding grammatical relations located in the hierarchy below the hierarchy threshold [stop words removed, col. 10, lines 40-56].

As to claim 6, Turtle and Liddy teach the invention substantially as claimed. Turtle further teaches determining the relationship based on constituents in the first textual input, other than the low ranked constituents [col. 9, lines 20-39].

As to claim 13, Turtle and Liddy teach the invention substantially as claimed. Turtle further teaches obtaining a hierarchy of case information; and obtaining a hierarchy threshold based on the usefulness of a constituent having that case [col. 15, lines 1-17].

As to claim 14, Turtle and Liddy teach the invention substantially as claimed. Turtle further teaches determining the usefulness of the identified constituents by locating the case information associated with the identified constituents in the hierarchy [40 of fig. 4].

As to claim 15, Turtle and Liddy teach the invention substantially as claimed. Turtle further teaches identifying low ranked constituents having the case indicated by the case information [col. 15, lines 1-17].

As to claim 16, Turtle and Liddy teach the invention substantially as claimed. Turtle further teaches determining the relationship based on constituents in the first textual input, other than the low ranked constituents [col. 17, lines 1-44].

As to claim 41, Turtle and Liddy teach the invention substantially as claimed. Turtle further teaches a linguistic analysis of at least a portion of the first or second textual input [linguistic relationship, col. 13, lines 20-26].

5. The elements of claims 23-35, 43, and 62-66 are rejected in the analysis above in claims 1-6, 13-16, and 41 above, and these claims are rejected on that basis.

Allowable Subject Matter

6. Claims 7-12 and 17-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an Examiner's Statement of Reasons for Allowance:

As to claim 7, the features of identifying high ranked constituents having a corresponding grammatical relation located in the hierarchy at least as high as the hierarchy threshold and annotating the high-ranked constituents with a weighting value which weights the high ranked constituents higher than low-ranked constituents, taken together with other limitations of claims 1, 3-5 were not disclosed by the prior art of record.

Claims 8 and 9 being further limiting to claim 7 are also objected to.

As to claim 10, the features of preferentially matching terms in the first textual input against higher constituents in the second textual input having corresponding grammatical relations located relatively higher on the hierarchy than grammatical relations corresponding to lower constituents, taken together with other limitations of claims 1, 3, and 4 were not disclosed by the prior art of record.

Claims 11 and 12 being further limiting to claim 10 are also objected to.

As to claim 17, the features of identifying high ranked constituents having corresponding case information located in the hierarchy at least as high as the hierarchy threshold, and annotating the lower ranked constituents with a weighting value which weights the low ranked constituents lower than the high ranked constituents, taken together with other limitations of claims 1, 13-15 were not disclosed by the prior art of record.

Claims 18 and 19 being further limiting to claim 17 are also objected to.

As to claim 20, the feature of preferentially matching terms in the first textual input against higher ranked constituents in the second textual input having corresponding grammatical relations located relatively higher on the hierarchy than grammatical relations corresponding to lower constituents, taken together with other limitations of claims 1, 13, and 14 were not disclosed by the prior art of record.

Claims 21 and 22 being further limiting to claim 20 are also objected to.

Response to Arguments

7. Applicant's arguments filed on January 29, 2003 have been fully considered but they are not persuasive.

Applicant argues that Turtle does not consider the relationship between the various words or phrases in the formatted query.

As to this point, Examiner respectfully disagrees. Examiner believes that this feature is taught by Turtle. Turtle teaches that the phrase content of the query can be estimated using evidence about component words and the relationship between them [col. 13, lines 20-26].

Applicant argues that the limitations of claim 2 are not taught or suggested by Turtle or Liddy et al.

As to this point, Examiner respectfully disagrees. Turtle teaches a match between the concept node of a search query (or a first input query) and the content node of a document representation (or a second input query) [see col. 13, lines 51-57; 92 of fig. 8].

Applicant argues that Turtle does not discuss using grammatical relations.

Examiner respectfully disagrees. It should be noted that this feature is also taught by Turtle. Turtle teaches recognizing linguistic structure for phrases by statistical, syntactic techniques, and grammatical rules, see col. 9, lines 1-47].

Applicant argues that neither Turtle nor Liddy teaches obtaining a hierarch threshold.

As to this point, Examiner respectfully disagrees. Liddy teaches identifying a tree structure or a hierarchy of information [see fig. 6] and Turtle teaches a predetermined threshold value of terms or phrases [col. 11, lines 44-58; col. 15, lines 7-17].

Applicant argues that Turtle does not teach use of precomputed linguistic analysis as a factor in a data structure.

Examiner respectfully disagrees. Turtles teaches a linguistic analysis by estimating component words and the relationship between them, including linguistic relationships [col. 13, lines 20-26].

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuy Pardo, whose telephone number is (703) 305-1091. The examiner can normally be reached Monday through Thursday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici, can be reached at (703) 305-3830.

The fax phone number for the organization where this application or proceeding is assigned are as follows:

(703) 746-7238 (After Final Communication)

(703) 746-7239 (Official Communication)

(703) 746-7240 (For Status inquiries, draft communication)

and/or:

(703) 746-5616 (*Use this Fax#, only after approval by Examiner, for "INFORMAL" or "Draft" communication. Examiner may request that a formal/amendment be faxed directly to then on occasions*).

Any inquiry of a general nature of relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

9. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

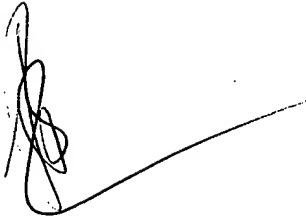
Or:

(703) 308-5359, (for informal or draft communications, please label

"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington.

VA., Sixth Floor (Receptionist).

A handwritten signature in black ink, appearing to be 'Thuy Pardo', with a long, sweeping horizontal line extending to the right.

Thuy Pardo
September 04, 2003